

a light source that directs a beam of light through said transparent substrate and said coating and onto the recording head, wherein the beam of light is reflected from the recording head; and,

a photodetector that detects the reflected light beam;

computer means for determining a flying height, said coating thickness having a value so that a minimum intensity level of the reflected light beam is at a negative flying height.

30. (New) The tester as recited in Claim 29, wherein said thickness of said coating is further substantially proportional to a wavelength of said light.

31. (New) The tester as recited in Claim 29, wherein said coating is transparent.

32. (New) The tester as recited in Claim 31, wherein said transparent coating has a hardness that is greater than a hardness of said transparent substrate.

33. (New) The tester as recited in Claim 31, wherein said transparent substrate is a glass material and said transparent coating is a diamond-like-carbon material.

34. (New) The tester as recited in Claim 33, wherein said diamond-like-carbon material is hydrogenated.

35. (New) The tester as recited in Claim 33, wherein said diamond-like-carbon material is nitrogenated.

36. (New) A method for determining a fly height of a recording head of a hard disk drive, comprising:

detecting a light beam that is transmitted through a transparent substrate and reflected from a recording head; and,